BETAGOV spark

BetaGov
The Marron Institute of Urban Management
New York University
60 Fifth Avenue, 2nd Fl.
New York, NY 10011
betagov.org

Patrol Car Visibility for Reducing Accidents at Intersections

Cruiser lights for highlighting police presence

Agency: Barrie (ONT) Police Service

Project Duration:
04/01/19–06/30/19

Pracademic*: Rich Johnston

Context
Increasing police presence on city streets may deter problematic behaviors such as speeding and distracted driving.

Key Finding
The number of motor-vehicle accidents at high-collision intersections did not differ between those with an increased police presence and those without.

*BetaGov provides ongoing training to agency personnel to become research-savvy "Pracademics" who can lead trials.

Background

Research shows that behavior of community members may change when law-enforcement officers are present. Results from projects that focused on increasing police presence to deter crime have been mixed. For example, random policing has not been shown to succed, whereas increasing patrols in high-crime areas ("hotspot policing") has been found to reduce crime. It may be that a police presence reduces behaviors linked to accidents, such as speeding and distracted driving.

The Barrie Police Service tested a police-presence strategy for reducing motor-vehicle collisions at high-accident intersections.

Design

A randomized controlled trial design compared a high police-presence condition with a usual police presence condition over a three-month trial duration. High police presence was operationally defined as patrol vehicles parked in proximity to targeted intersections with cruiser lights on. The ten intersections with the highest number of motor vehicle accidents in 2018 were randomly assigned to get focused police exposure (intervention, n=5), or usual police exposure (control, n=5).

Each of the five targeted intervention intersections had two 15-minute periods per day when officers assigned to the area were instructed to be parked with cruiser lights on, specifically between 9am and 6pm (the times of most traffic accidents). Officers used an online form to document their presence in real time.

Analyses compared the number of accidents and accidents with injuries across the two conditions.

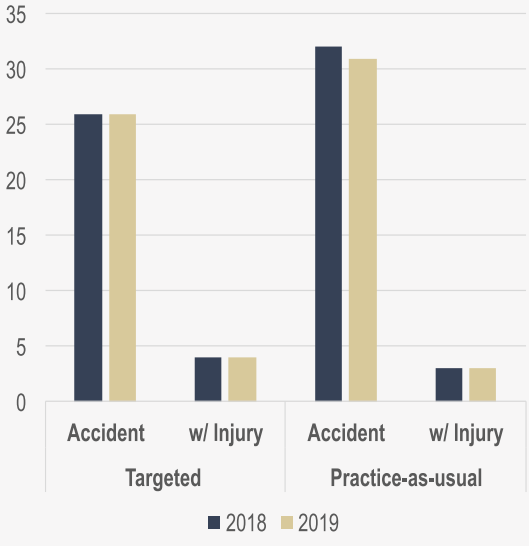
Lessons Learned

There was no statistically significant difference in accident or injury rates between the targeted intersections and the practice-as-usual intersections. The figure below shows events during the trial in 2019 and for the same intersections and time period in 2018. Rates are similar across condition and across year.

Next Steps

This was a first trial to test the feasibility and effectiveness of an increased police presence. Although this simple strategy did not yield significant reductions in accident rates, the model may be tested for other purposes by the Barrie Police Service.

Accidents and Accidents with Injuries, by Year across Conditions



Why BetaGov Spark?

Sometimes a rigorous trial of an innovative idea just isn't possible, but with a Spark project a practitioner can learn important information about the idea, the agency, and the sample. What's more, a positive signal may inform a future randomized controlled trial and more definitive results. Spark projects meet Pracademics where they are comfortable—giving them the opportunity to learn about research and apply that learning to internal research projects.